

BIG SAVING IS EFFECTED

Liverpool Firm Has Invented Self-Discharging Apparatus for Steam Vessels.

THE FUEL IS EASILY HANDLED

Bucket-Elevator Principle is Employed and Tests Are Satisfactory—Other Marine News.

(Liverpool Journal of Commerce.)

One of the most serious problems which ship owners have to face is that of coaling their steamers in a rapid and economical manner. In these days of mechanical and engineering progress the painful spectacle of a crowd of grimy, perspiring coal heavers laboriously passing baskets of coal from lighter and coal barge to a steamer which is taking in her bunkers seems rather a survival of the barbarous ages than an ordinary feature of the conduct of British shipping. Nor is it only the "coal slaves" who suffer. The ship must sail at her specified time and thus it often happens with present tedious methods that coal is shut out, and the vessel sails minus the 100 or 200 tons which she has room for. The removal of these very serious disabilities has long engaged the attention of inventors, but up to the present with out tangible or satisfactory results. There is, however, every prospect of this difficult problem being satisfactorily solved by Messrs. R. and J. Morley, the well known firm of launch and yacht builders, of Liverpool. Their patent takes the form of a self-discharging barge of vessel, by which it is claimed a saving of 50 per cent over existing appliances is effected.

Practically the self-discharger is an adoption of the bucket-elevator principle. The vessel fitted with it is fitted with a metal road, along which the conveyor runs, and to which, of course, the coal is superincumbent. The conveyor, discarding technical language, takes the form of a belt composed of two parallel chains, connected at intervals by steel rods, crossing the conveyor road at right angles. When set in motion the conveyor carries the coal to the foot of a camel plate, and the coal is transferred to a series of skips or buckets, each capable of holding 100 pounds. These buckets move in a vertical trunk, and discharge their coal at the highest point of the ascent into a coal chute, which would in actual practice lead to a bunker hatch. For the trials some 50 or 60 tons of coal were stored in a huge bin, representing the hold of a coal-laden vessel, the motive power to drive conveyor and elevator being supplied from an adjacent crane. As soon as the steam was turned on the conveyor began to transport coal to the elevator, and each bucket picked up its load, ascended the trunk, and discharge it down the chute.

Though exact means of measuring the work done was not available, the consensus of opinion among the experts present was that in 10 minutes at least 20 tons of coal was transferred from the bin. There was not the slightest jamming, thanks to the camel plate, and the big lumps were handled and bucketed with the greatest ease. In fact the coal operated upon was above the average size, and therefore the success of the trial was all the more pronounced. Such an invention as this promises to revolutionize the coaling of steamers where that operation is performed from lighters or barges along side. The height of the trunk is adjustable so that it can be adopted to ships of various heights of side. Nor are the possibilities of this admirable invention limited to coaling. For discharging cargoes of ore or gravel it is equally applicable, and the shipping public can confidently look to important

HEADACHE

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developments in the manipulation of such cargoes at no distant date.

HEAVY STORM IS RAGING.

Wind Attained Velocity of 72 Miles an Hour Yesterday.

One of the worst storms of the winter prevailed along the northwest coast yesterday. The storm centered off Cape Flattery and moved southwest, creating an unusual disturbance. For a time yesterday the gale howled along effect that the wind was still blowing latest reports last night were to the effect that the wind was still blowing at the rate of 60 miles an hour.

The steamship Oregon, which went down to the lower harbor Tuesday afternoon, did not leave out until 2 o'clock yesterday afternoon. When she departed a 60-mile gale was blowing. Several big seas washed her decks, but she went out without accident. The gasoline schooner Della started for sea, but the huge waves compelled her to return to port. The steamer Sue H. Elmore likewise made an unsuccessful effort to get out. Notwithstanding the heavy gale which raged off the river, there was little wind in the inner harbor, and, while the day was disagreeable, it was not stormy by any means in the city.

THE LUMBER CARRIERS.

Five-Masted Schooner to Load At Port land for Orient.

The barkentine Louisiana was towed up the river yesterday to take on a cargo of lumber.

The schooner Zampa, now ready for sea with a cargo of lumber for San Francisco, takes \$500,000 feet. The steamer Aurelia has cleared for the Bay city with 400,000 feet. The manifest of the barkentine Gardiner City has not yet been filed.

The Pacific Export Lumber Company has chartered the five-masted schooner Henry K. Hall to load lumber at Portland for China. The Hall is a new schooner, having been built at Port Blakeley by the Hall Bros. last year. This will be her second voyage. She sailed on her maiden trip from Tacoma last September for Sydney, carrying 1,601,641 feet of lumber. She made a good run to Australia and returned from there to Honolulu and is now on the way to this city from the Hawaiian port. The schooner is of 1105 tons net register.

Marine Notes.

The steamship Oregon departed at 2 o'clock yesterday afternoon for San Francisco.

The transport Dix is due tomorrow from San Francisco. She will load forage at Portland for the Philippines.

The steamer Prentiss arrived yesterday from San Pedro and San Francisco with a cargo made up of asphalt, axle grease, skid oil and canned goods. The freight is consigned to Spokane and Portland merchants.

Jack London Arrested.

New York, Feb. 3.—Jack London, the writer who recently went to Japan for the purpose of reporting events in connection with the threatening hostilities between that country and Russia has been arrested and imprisoned at Shimoda, according to an American dispatch from Tokio. He is charged with photographing Japanese fortifications.

Robber Beats Woman.

Chicago, Feb. 3.—While a dozen ferried waitresses in a woman's restaurant at 153 Michigan avenue shrieked and fled from the leveled revolver of two hold up men, Miss N. E. Sumner, the cashier, resisted the efforts of a third thief to open the cash register. Only when she had been struck several times and a revolver pressed against her head did the cashier give up. The amount secured was about \$90.

"Within the last ten years," says a writer recently, "the general dimensions of the ark have been closely followed by cargo steamship builders or deep sea and the American great lakes service. According to the Bible, the ark was 480 feet long, 80 feet wide and 48 feet deep. Her tonnage was 11,412, and she had plenty of room for pairs of all the distinct species of animals that are classed by Buffon—244—and she could have accommodated a thousand persons, and then have plenty of room for the storage of supplies. In the seventeenth century Peter Jansen, a Hollander, built a vessel of the exact proportions of the ark, and she was successful, as records of the time show. In making money for her owners. Noah, 'the Father of Naval Architecture,' is held in profound respect by naval architects of today, who know how immeasurably the Phoenixians, Greeks and Romans and all other ship builders fell short of the excellence of the type of the ark as a commodious, safe and economical vessel."

BUSINESS LOCALS

LET YOUR WANTS BE KNOWN. Somebody has what you want, or wants what you have to sell. Here is where want and wanted come together. ADVERTISE.

First-class meal for 15c; nice cake, coffee pie or doughnuts, 5c. U. S. restaurant, 434 Bond street.

Mrs. Dupont's skin food has world-wide reputation. Sold only at Owl and Eagle drug stores. 25 cents a box.

The Morning Astorian will be found for sale at Griffin's book store and at Scully's cigar store, corner Eleventh and Commercial streets.

Wood. Wood. Wood.
Cord wood, mill wood, box wood, any kind of wood at lowest prices. Kelly, the transfer man. Phone 2211 Black. Barn on Twelfth, opposite opera house.

JAPANESE GOODS.
New stock of fancy goods just arrived at Yokohama Bazaar. Call and see the latest novelties from Japan.

For rent, furnished or unfurnished two large, clean rooms for housekeeping; water in kitchen. Over Peterson & Brown's shoe store.

MRS. C. L. HAVENS.

Upper Astoria has a place where you can get a fine glass of beer, as good wines and liquors as you can find any place in the city.

HARRY JONES,
Opposite Kopp's Brewery.

Piano Tuner.
For good, reliable piano work see your local tuner, Th. Fredrickson. 2071 Bond street. Phone Red 2074.

Monarch over pain. Burns, cuts, sprains, stings. Instant relief. Dr. Thomas' Electric Oil. At any drug store.

BEST 15-CENT MEAL.
You will always find the best 15c meal in the city at the Rising Sun restaurant. No. 612 Commercial street.

Wanted.
Men to learn barber trade. Only eight weeks required; constant practice and expert instruction; positions secured when competent. Catalogue mailed free. Moler System College, San Francisco Calif.

Roosevelt or Hanna—it all depends on the people. If it is left to the west the president will get the unanimous vote. However, it is the unanimous opinion of good judges that the fine line of hair brushes for sale at from 25 cents to \$3.50 at Hart's drug store is the best ever brought to the city.

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If it is in season you will find it at its best at the celebrated Toke Point oyster house on Eleventh street. Fish, game, shell-fish, choicest meats, pastry, coffee, etc., etc., served to the queen's taste. Special accommodations for parties. Open all night. Don't miss the place, Eleventh street, near Bond.

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and comfort than the plumbing. We are prepared to do all work in this line in the most scientific and satisfactory manner. We keep the latest improved fittings always in stock for new or repair work. All kinds of tinning, heating and steam-fitting. Phone 1031. 425 Bond street. JOHN A. MONTGOMERY.

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To be tired out from hard work or bodily exercise is natural and rest is the remedy, but there is an exhaustion without physical exertion and a tired, never-rested feeling—a weariness without work that is unnatural and shows some serious disorder is threatening the health. One of the chief causes of that "Always-tired, never-rested condition" is impure blood and bad circulation. Unless the body is nourished with rich, pure blood there is lack of nervous force, the muscles become weak, the digestion impaired, and general disorder occurs throughout the system. Debility, insomnia, nervousness, indigestion, dyspepsia, loss of appetite, strength and energy, and the hundreds of little ailments we often have are due directly to a bad condition of the blood and circulation, and the quickest way to get rid of them is by purifying and building up the blood, and for this purpose no remedy equals S. S. S., which contains the best ingredients for cleansing the blood and toning up the system. It is a vegetable blood purifier and tonic combined, that enriches the blood, and through it the entire system is nourished and refreshing sleep comes to the tired, never-rested, body.

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For over four years I suffered with general debility, causing a thorough breaking down of my system. My cousin, who had been benefited by S. S. S., told me about it. I tried it and it cured me. I heartily recommend S. S. S. to all who may feel the need of a thoroughly good blood tonic.
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